

12.0 LEVEL 2 EVALUATION – PRELIMINARY ANALYSIS

12.1 Level 2 Evaluation Summary

The Level 1 analysis narrowed the 50 to 60 corridors drawn by the public down to eighteen plus the no-build. For the second level of analysis these corridors were evaluated based on system operations, traffic operations, natural environment impacts, human environment impacts and cost.

System Operations Evaluation

The system operations evaluation took into consideration corridor length, whether or not the corridor crosses the Kentucky River, potential transportation system safety improvements, study area travel time savings, and connectivity. The transportation system safety evaluation gave each corridor a ranking of low, medium or high, indicating how many high crash rate sections from which the corridor is likely to divert traffic. If the corridor is likely to divert traffic from 10 to 13 high crash rate sections, it was considered to have low system safety. If the number of crash rate sections was 14 or 15, it was given medium system safety. If traffic is likely to be diverted from more than 16 high crash rate sections, the corridor was considered to have a high system safety improvement. The study area travel time savings was calculated based on the difference in vehicle hours of travel (VHT) from the no-build scenario. All corridors provided some travel time savings. Connectivity stated whether or not the corridor would connect to another roadway at its western terminus at US 27 and/or its eastern terminus at I-75.

Traffic Operations Evaluation

The traffic operations evaluation looked at 2040 Average Daily Traffic (ADT), 2040 Level of Service (LOS), and the corridor truck percentage. The ADT analysis was performed using the Kentucky Statewide Model (KYSTM). Each corridor was coded into the model, and then the model was run to determine the ADT along the corridor. A one percent per year growth rate was used to forecast the ADT from the model to the 2040 ADT. The ADTs of US 27, I-75 and Man O' War Boulevard were found using the model for the no-build scenario. The volumes of US 27, I-75 and Man O' War Boulevard for each corridor scenario were then compared to the no-build scenario and a range of traffic increase and / or decrease was given. A range of LOS for various segments along US 27, I-75, and Man O' War Boulevard was given for the no-build as well as each of the eighteen corridor scenarios. LOS was also calculated for each of the corridors. A range of truck percentages along each corridor was also calculated from the model.

Natural Environment Evaluation

Each of the eighteen corridors and the no-build option was evaluated with regards to the number of streams that would be impacted in the corridor, the number and acres of potential wetlands / ponds in the corridors and acres of floodplain that would be impacted. A GIS dataset was used to detail this evaluation.

Human Environment Evaluation

The human environment analysis included the number of known historic sites and known archeological sites in each corridor, and landfills and other potential HAZMAT site impacts. The number of farmland impacts in acres was also evaluated. Environmental justice impacts were considered for each of the corridors. For most of these criteria, a GIS dataset was used to detail this evaluation.

Cost Evaluation

The cost for each corridor was estimated. A typical section was assumed for a 4-lane divided facility. These estimates were for construction only and did not include design, right-of-way, utilities or mitigation costs. The estimates were for planning level purposes and are in 2008 constant dollars.

Other Criteria

In addition to the criteria listed above, other criteria were evaluated but left off of the evaluation matrix because they did not differentiate one corridor from another. The PDT as well as the PWG was made aware of this situation and chose to focus on only the above criteria that did make a difference in the evaluation. These dropped criteria are listed below:

- Number of interchanges (2);
- Threatened / rare / endangered species;
- Wildlife management / conservation areas;
- Quarries / mines;
- Park or recreation facilities; and,
- Underground storage tanks (USTs).

12.2 Level 2 Corridor Analysis

The eighteen corridors and no-build scenario were put into an evaluation matrix with the criteria listed above. **Table 14** shows the evaluation matrix for all of the corridors. The eighteen corridors are labeled according to their beginning and ending points. For example, Corridor 2-1 begins at the second point in the west and ends at the first point in the east. The colors on the table help to indicate relative performance in a category. Cells that are shaded green generally indicate good performance in a category while cells shaded red indicates poor performance in a category.

Corridor 1-1

Corridor 1-1 begins in the west at US 27 just south of KY 1980, and ends at I-75 in the east, just west of Boone Creek Rural Historic District. It has a relatively short length with no Kentucky River crossing, low system safety benefits, low travel time savings and limited connectivity. The ADT is high on the connector, and traffic volumes are lowered on some segments of Man O' War Boulevard. LOS on one segment of Man O' War Boulevard is improved from LOS E to D as a result. There are a low number of streams and potential wetlands and ponds impacted, as well as a low number of known historic

sites impacted. There are a high number of farmland acres impacted, and possible minority and elderly community impacts. The cost of this corridor is \$233 million, one of the least expensive build options.

Corridor 2-1

Corridor 2-1 begins in the west at the US 27 / KY 3375 intersection and extends east to I-75 west of Boone Creek Rural Historic District. It has a relatively short length with no bridge crossing, and low system safety benefits. It connects to KY 3375 at the western terminus. The ADT on the connector is high, and it significantly lowers traffic volumes on some segments of Man O' War Boulevard, improving LOS on one segment of Man O' War Boulevard from LOS E to D. Corridor 2-1 has a low number of potential wetlands and ponds impacted, as well as a low number of impacts to known historic sites, and landfills / HAZMAT sites. There are, however, a high number of archeological sites and farmland impacts. This alternative has a cost estimate of \$235 million, one of the lower estimates.

Corridor 3-1

Corridor 3-1 begins at US 27 just north of the US 27 / Northern US 27 Bypass intersection. It extends to I-75 west of Boone Creek Rural Historic District. It has a relatively short length and no Kentucky River crossing. It does, however, have high system safety benefits. It connects to the US 27 eastern and western bypasses at the western terminus. The connector has a relatively high ADT and significantly lowers traffic volumes on some segments of Man O' War Boulevard, improving the LOS on one segment of Man O' War Boulevard from LOS E to D. This corridor has a low number of streams impacted; however there are high farmland impacts as well as potential low-income and elderly community impacts. The cost estimate is \$234 million.

Corridor 4-1

Corridor 4-1 begins at the Eastern Nicholasville Bypass / KY 169 intersection and extends east to I-75 west of Boone Creek Rural Historic District. It has the shortest length of all the corridors, no Kentucky River crossing, and low travel time savings. It connects to KY 169 at the western terminus. The addition of this corridor significantly lowers traffic volumes on some segments of Man O' War Boulevard, and improves LOS on one segment of Man O' War Boulevard from LOS E to D. There are a low number of potential wetlands and ponds impacted, as well as the lowest number of impacts to known historic sites. There are, however, potential low-income community impacts. This alternative has the lowest cost estimate at \$211 million.

Table 14: Level 2 Evaluation Matrix

Alternative Corridors	System Operations						Traffic Operations								
	Length	Bridge Crossing (Yes / No)	System Safety Improvement (Low, Medium, High)	Study Area Travel Time Savings (vehicle hours of travel)	Connectivity		2040 Average Daily Traffic (Low to High)				2040 Level of Service (range)				Corridor Truck % (range)
					US 27 (West)	I-75 (East)	Connector	US 27	I-75	Man O' War Blvd	Connector	US 27	I-75	Man O' War Blvd	
0	0.00	No	Low	0	None	None	N/A	13,800 - 146,700	114,100 - 192,400	51,300 - 135,900	N/A	B-F	F	E-F	N/A
1-1	10.05	No	Low	118	None	None	15,600 - 21,500	5% less to 3% more	8% less to 4% more	14% less to 7% more	A-B	B-F	F	D-F	11.8% to 12.7%
2-1	10.02	No	Low	244	KY 3375	None	12,100 - 19,500	5% less to 2% more	14% less to 4% more	16% less to 1% less	A-B	B-F	F	D-F	12.2% to 14.3%
3-1	10.73	No	High	195	US 27 Eastern / Western Bypass	None	12,600 - 18,400	7% less to 8% more	5% less to 5% more	17% less to 1% less	A-B	B-F	F	D-F	13.1% to 14.6%
4-1	9.84	No	Medium	124	KY 169	None	14,300 - 15,300	8% less to no change	5% less to 4% more	18% less to 1% less	A	B-F	F	D-F	15.1% to 16.9%
4-2	12.92	Yes	Medium	394	KY 169	KY 3055, KY 627	13,600 - 15,600	8% less to 12% more	9% less to 2% more	9% less to no change	A	B-F	F	E-F	12.8% to 14.7%
4-3	13.14	Yes	Medium	76	KY 169	None	13,300 - 16,900	9% less to 6% more	11% less to no change	9% less to no change	A-B	B-F	F	E-F	13.5% to 15.0%
4-4	13.72	Yes	Medium	455	KY 169	None	15,600 - 19,200	7% less to 12% more	11% less to 3% more	9% less to no change	A-B	B-F	F	E-F	10.4% to 12.5%
5-2	12.83	Yes	Medium	351	None	KY 3055, KY 627	12,900 - 14,600	9% less to 21% more	8% less to 1% more	9% less to no change	A	B-F	F	E-F	12.7% to 16.6%
5-3	13.13	Yes	Medium	440	None	None	13,600 - 16,000	10% less to 22% more	9% less to 2% more	9% less to no change	A	B-F	F	E-F	13.8% to 14.7%
5-4	13.67	Yes	Medium	427	None	None	14,500 - 17,500	11% less to 21% more	9% less to 3% more	9% less to no change	A-B	B-F	F	E-F	11.7% to 13.7%
6-2	13.29	Yes	Low	265	None	KY 3055, KY 627	11,800 - 12,700	9% less to 21% more	8% less to 2% more	9% less to no change	A	B-F	F	E-F	13.4% to 16.8%
6-3	13.55	Yes	Low	341	None	None	11,700 - 12,900	10% less to 22% more	8% less to 2% more	9% less to no change	A	B-F	F	E-F	13.2% to 16.5%
6-4	14.07	Yes	Low	138	None	None	12,000 - 13,400	10% less to 21% more	9% less to 3% more	10% less to no change	A	B-F	F	E-F	13.1% to 15.7%
7-2	14.10	Yes	High	330	US 27 Eastern / Western Bypass	KY 3055, KY 627	7,400 - 13,000	9% less to 4% more	8% less to 1% more	9% less to no change	A	B-F	F	E-F	13.5% to 16.9%
7-3	14.34	Yes	High	319	US 27 Eastern / Western Bypass	None	5,500 - 13,200	9% less to 3% more	8% less to 2% more	9% less to no change	A	B-F	F	E-F	13.1% to 22.6%
7-4 (North)	14.88	Yes	High	360	US 27 Eastern / Western Bypass	None	7,400 - 14,200	10% less to 3% more	9% less to 2% more	9% less to no change	A	B-F	F	E-F	14.2% to 16.3%
7-4 (South)	14.65	Yes	High	307	US 27 Eastern / Western Bypass	None	8,200 - 13,700	4% less to 21% more	9% less to 2% more	9% less to no change	A	B-F	F	E-F	15.1% to 19.8%
7-5	15.44	Yes	High	171	US 27 Eastern / Western Bypass	US 25 / Richmond Bypass	8,200 - 14,000	4% less to 21% more	9% less to 2% more	9% less to no change	A	B-F	F	E-F	13.7% to 17.5%

Table 14: Level 2 Evaluation Matrix (cont.)

Alternative Corridors	Natural Environment			Human Environment					Cost (in 2008 Constant Dollars)
	No. of Streams Impacted in Corridor	Potential Wetlands / Ponds in Corridor #s (Acres)	Floodplains Impacts (Acres)	No. of Known Historic Sites in Corridor	No. of Known Archeological Sites in Corridor	Environmental Justice Impacts	Farmland Impacts (Acres)	Landfills and Other Potential HAZMAT Site Impacts	Initial Estimated Cost in Millions (Does not include Design, ROW, Utilities, & Mitigation)
0	0	0(0)	0	0	0	None	0	0	0
1-1	16	60(38)	124	7	2	Possible Minority and Elderly impacts	903	1	233
2-1	20	56(36)	124	8	4	None	948	0	235
3-1	16	71(32)	59	11	2	Low-income and Elderly impacts	948	2	234
4-1	20	46(24)	62	4	1	Low-income impacts	885	2	211
4-2	23	76(71)	137	23	0	Low-income impacts	716	5	341
4-3	25	89(65)	137	23	1	Low-income impacts	740	3	342
4-4	26	87(69)	137	22	0	Low-income impacts	813	1	356
5-2	24	88(75)	88	19	0	None	654	5	336
5-3	25	101(68)	88	19	1	None	678	3	339
5-4	25	99(73)	88	18	0	None	751	1	352
6-2	26	102(83)	50	11	1	None	612	4	332
6-3	23	111(75)	50	9	2	None	624	2	352
6-4	23	107(78)	50	8	1	None	698	0	372
7-2	28	104(86)	61	15	3	None	697	4	341
7-3	28	113(78)	61	13	4	None	709	2	361
7-4 (North)	27	109(82)	61	12	3	None	782	0	380
7-4 (South)	32	77(61)	66	17	2	None	621	2	377
7-5	33	109(71)	66	18	3	Minority, Low-income and Elderly impacts	612	4	409

Corridor 4-2

Corridor 4-2 begins at the Eastern Nicholasville Bypass / KY 169 intersection and extends to the I-75 / KY 627 interchange. This alternative crosses the Kentucky River, and connects to KY 169 at the western terminus and KY 3055 and KY 627 at the eastern terminus. The addition of the corridor would lower traffic volumes on some segments of Man O' War Boulevard, but there is no change in LOS. This alternative would impact a high amount of floodplains in addition to known historic sites and landfills / HAZMAT sites. However, there are no archeological sites within the corridor. It would also impact potential low-income populations. This alternative's cost estimate is \$341 million.

Corridor 4-3

Corridor 4-3 begins at the Eastern Nicholasville Bypass / KY 169 intersection and extends east to I-75 just south of the KY 627 interchange. This corridor does cross the Kentucky River; however it has the lowest travel time savings of the build alternatives. It connects to KY 169 at the western terminus. The addition of the corridor lowers traffic volumes on some segments of Man O' War Boulevard, but does not result in a change in LOS. Within the corridor there are high floodplain impacts, as well as the highest number of known historic sites. Potential for low-income populations do exist in the corridor and they may be impacted. The cost is estimated to be \$342 million.

Corridor 4-4

Corridor 4-4 begins at the Eastern Nicholasville Bypass / KY 169 intersection and extends east to I-75 near Northridge Way. It crosses the Kentucky River and connects to KY 169 at the western terminus. This corridor has the highest study area travel time savings. The KYSTM model shows a high ADT on the connector, in addition to lower traffic volumes on some segments of Man O' War Boulevard. There is no change in LOS on US 27, Man O' War Boulevard or I-75 as a result of the connector. There are a large amount of floodplain impacts, as well as a high number of impacts to known historic sites. There are no archeological sites in the corridor, but there are potential low-income populations. Construction costs are estimated at \$356 million.

Corridor 5-2

Corridor 5-2 begins at the Eastern Nicholasville Bypass between KY 169 and KY 39. It crosses the Kentucky River and connects to KY 3055 and KY 627 at the eastern terminus. This corridor lowers traffic volumes on some segments of Man O' War Boulevard, but there is no change in LOS. The corridor has an average impact to streams, wetlands and ponds, and floodplains compared with the other alternatives. There are no archeological sites within the corridor but there are a high number of landfills / HAZMAT sites. This alternative's cost estimate is \$336 million.

Corridor 5-3

Corridor 5-3 begins at the Eastern Nicholasville Bypass between KY 169 and KY 39. It crosses the Kentucky River and ends just south of the I-75 / KY 627 interchange. There is no connectivity to other roads at either terminus. There are lower traffic volumes on some segments of Man O' War Boulevard, but no change in LOS. This corridor would

have a high number of potential wetlands and ponds impacted. The estimated cost is \$339 million.

Corridor 5-4

Corridor 5-4 begins at the Eastern Nicholasville Bypass between KY 169 and KY 39 and extends to I-75 near Northridge Way. It crosses the Kentucky River but there is no connectivity at either terminus. It has a relatively high ADT on the connector, and lowers traffic volumes on some segments of Man O' War Boulevard. There is no change in LOS on US 27, Man O' War Boulevard or I-75. Impacts to streams, wetlands and ponds, and floodplains are average compared to other corridors. There are no known archeological sites in the corridor. The estimated cost is \$352 million.

Corridor 6-2

Corridor 6-2 begins at the Eastern Nicholasville Bypass south of KY 39 and extends to the I-75 / KY 627 interchange. It crosses the Kentucky River, but has low system safety benefits. It connects to KY 3055 and KY 627 at the eastern terminus. The addition of the corridor results in lower traffic volumes on some segments of Man O' War Boulevard, but no change in LOS. The corridor causes a high number of impacts to potential wetlands and ponds, but has the lowest floodplains impacts, as well as the lowest farmland impacts. This corridor has a cost estimate of \$332 million.

Corridor 6-3

Corridor 6-3 begins at the Eastern Nicholasville Bypass south of KY 39 and ends at I-75 south of the KY 627 interchange. It crosses the Kentucky River, but has low system safety benefits, and no connectivity. There are lower traffic volumes on some segments of Man O' War Boulevard, but no change in LOS. This corridor has high impacts to potential wetlands and ponds, but the lowest floodplains impacts. There are also a low number of known historic sites in the corridor and farmland impacts. Construction costs are estimated at \$352 million.

Corridor 6-4

Corridor 6-4 begins at the Eastern Nicholasville Bypass south of KY 39 and ends at I-75 near Northridge Way. It crosses the Kentucky River and has low system safety benefits. There is no connectivity at either terminus. The corridor does lower traffic volumes on some segments of Man O' War Boulevard, but there is no change in LOS. There would be high impacts to potential wetlands and ponds, but the lowest floodplains impacts. There are a low number of impacts to known historic sites, and no landfill or HAZMAT sites within the corridor. Construction costs are estimated to be \$372 million.

Corridor 7-2

Corridor 7-2 begins at the Eastern Nicholasville Bypass at the southern connection to US 27 and extends to the I-75 / KY 627 interchange. It crosses the Kentucky River and has high system safety benefits. It connects to the US 27 eastern and western bypasses at the western terminus and KY 3055 and KY 627 at the eastern terminus. There is a relatively low ADT on the connector, but the addition of the connector still lowers traffic volumes on some segments of Man O' War Boulevard. There is no

change in LOS along US 27, I-75 or Man O' War Boulevard. There are a high number of streams and potential wetlands and ponds impacted. This corridor's cost estimate is \$341 million.

Corridor 7-3

Corridor 7-3 begins at the Eastern Nicholasville Bypass at the southern connection to US 27 and ends at I-75 south of the KY 627 interchange. It crosses the Kentucky River, has high system safety benefits, and connects to the US 27 eastern and western bypasses at the western terminus. The connector has the lowest ADT, but still lowers traffic volumes on some segments of Man O' War Boulevard. There is no change in LOS. There are a high number of streams and potential wetlands and ponds impacted, as well as a high number of archeological sites within the corridor. The construction cost estimate of this alternative is \$361 million.

Corridor 7-4 (North)

Corridor 7-4 (North) begins at the Eastern Nicholasville Bypass at the southern connection to US 27, and ends at I-75 near Northridge Way. It has a relatively long length, crosses the Kentucky River, has high system safety benefits, and connects to the US 27 eastern and western bypasses at the western terminus. The connector has a low ADT but still lowers traffic volumes on some segments of Man O' War Boulevard. There is no change in LOS. There are a high number of potential wetlands and ponds impacted, but there are no landfills or HAZMAT sites impacted. This alternative's cost estimate is \$380 million.

Corridor 7-4 (South)

Corridor 7-4 (South) begins at the Eastern Nicholasville Bypass at the southern connection to US 27 and ends at I-75 near Northridge Way similar to Corridor 7-4 (North) but takes a southerly route between the two points. It has a relatively long length, crosses the Kentucky River, has high system safety benefits, and connects to the US 27 eastern and western bypasses at the western terminus. The connector has a low ADT but still lowers traffic volumes on some segments of Man O' War Boulevard. There is no change in LOS. It has a high number of impacts to streams, and average impacts to potential wetlands and ponds, and floodplains compared to other alternatives. It also has low farmland impacts. This alternative's cost estimate is \$377 million.

Corridor 7-5

Corridor 7-5 begins at the Eastern Nicholasville Bypass at the southern connection to US 27 and ends at the I-75 / Northern Richmond Bypass interchange. It is the longest of all of the alternatives at 15.44 miles. It crosses the Kentucky River, has high system safety benefits, and connects to the US 27 eastern and western bypasses at the western terminus and to the US 25 / Richmond bypass at the eastern terminus. The connector has a low ADT but still lowers traffic volumes on some segments of Man O' War Boulevard. There is no change in LOS. The corridor has the highest number of streams potentially impacted. There are also potential minority, low-income and elderly

community impacts within the corridor. There low amounts of farmland impacted, however this alternative has the highest estimated construction cost at \$409 million.

12.3 Level 2 Analysis Results

By looking at the termini points, considering connectivity and impacts as outlined in the matrices and discussed previously, the number of corridors were reduced from eighteen to six, not including the No-Build option. It remained as the baseline comparison as well as a viable alternative. The remaining alternative corridors include all corridors that go through points 4, 5, and 6 on US 27 and points 2 and 4 on I-75 (alternative corridors 4-2, 4-4, 5-2, 5-4, 6-2, and 6-4). The corridors that were removed from consideration are listed below along with a summary of the reasons for dismissal.

Alternative Corridor 1-1, 2-1, 4-1: These corridors are located in the northern most portion of the study area, which could lead to significant farmland and residential impacts. In addition, these alternative corridors would go through existing established neighborhoods leading to much community disruption. Alternatives 1-1 and 4-1 could have potential environmental justice impacts, while all three alternatives may impact known archeological sites.

While connectivity east and west of the project study area was not a major element of the scope of work, it should be noted that there is no existing connectivity within this corridor. Furthermore, a Kentucky River crossing is not included in these alternatives; therefore while they would lead to a lower cost, they lose the added benefit for an additional river crossing to provide an alternative route to I-75 were there to be an incident (either traffic or security related) that would render the Clays Ferry Bridge inaccessible. It may be that with an additional river crossing, federal funding through Homeland Security monies could be secured for this project. It should be noted though, that that no discussion with Homeland Security at the State or Federal level was a part of this scoping study. An additional bridge would also enhance the availability of evacuation routes in case of an incident at the Bluegrass Army Depot, further strengthening the argument of the necessity of an additional bridge.

With regard to traffic, there is the perception that a northern route through Fayette County could become another bypass of Lexington, catering to commuter traffic and furthering the congestion on US 27 and perhaps accelerating urban sprawl. The travel time savings is lower for these alternative corridors than others further south with a river crossing. From a safety perspective, the initial qualitative analysis showed that these corridors would have a low to medium improvement for system safety. Generally, as the purpose of this project is to improve safety, connectivity and regional access, these alternative corridors fail to satisfy these criteria and were therefore dismissed from further consideration.

Alternative Corridor 3-1: This alternative corridor has similar benefits and impacts as Alternative Corridors 1-1, 2-1, and 4-1 with regard to environmental justice, residential and farmland impacts, connectivity, Homeland Security, commuter traffic, and travel

time savings. There is a benefit from this corridor, however, since from a safety perspective, the initial qualitative analysis showed that this corridor would have a high improvement for system safety. Generally, with the purpose of this project being to improve safety, connectivity and regional access, this alternative corridor may improve safety but fails to satisfy the other two criteria and was therefore dismissed from further consideration.

Alternative Corridor 4-3: Based on the matrix, there are numerous impacts that provide justification for dismissing this corridor from further study including the highest number of potentially impacted acres of floodplains and known historic sites, as well as potential impacts to low-income Environmental Justice communities. Also, there is limited system connectivity opportunities. In addition, a new interchange at this location may be too close to the existing interchange at KY 627. From a travel time savings perspective, this alternative corridor has the lowest vehicle hours of travel savings in the study area.

Alternative Corridor 5-3: From an environmental perspective, there are a high number of known historic sites and stream impacts along this corridor. There is also no existing transportation system connectivity opportunities. In addition, a new interchange at this location may be too close to the existing interchange at KY 627. This alternative corridor does not warrant further study as there are other more viable alternative corridors based on connectivity.

Alternative Corridor 6-3: Within this corridor there are a high number of potential wetlands and ponds that could be impacted, although there are fewer acres of farmland that could be potentially impacted. There is limited transportation system connectivity opportunities. In addition, a new interchange at this location may be too close to the existing interchange at KY 627. From a safety perspective, this alternative corridor rates low with regard to the potential for system safety improvement. Considering that it does not satisfy the project purpose of improving safety, connectivity and regional access, it was dismissed from further consideration.

Alternative Corridor 7-2: This corridor is located in the southern portion of the study area away from the majority of the residential areas. However, based on the traffic analysis, corridors with a western terminus as far south as terminus 7 attracted significantly less traffic onto the new connector. This would make it difficult to justify spending the amount of money it would take to build the corridor.

Alternative Corridor 7-3: Within this corridor there are a high number of known archeological sites, and there is no transportation system connectivity opportunities. In addition, a new interchange at this location may be too close to the existing interchange at KY 627. Furthermore, similar to Alternative Corridor 7-2, corridors with a western terminus as far south as terminus 7 on US 27 attracted significantly less traffic to the connector, making it difficult to justify the cost.

Alternative Corridor 7-4 (North) and 7-4 (South): These alternatives have a high number of streams that could be impacted within the corridors. In addition there is little transportation system connectivity opportunities. With the western terminus point at 7 on US 27, these alternative corridors have similar issues as Alternative Corridors 7-2 and 7-3 and were therefore dismissed from further consideration.

Alternative Corridor 7-5: The eastern terminus of this corridor is on I-75 at the Richmond Bypass. Currently this area is heavily developed which would make construction of this alternative difficult. Furthermore, this is the longest corridor, has the highest cost, and may affect potential minority, low-income, and elderly communities. Based on the traffic analysis, corridors with a western terminus as far south as terminus 7 on US 27 attracted significantly less traffic to the connector, which would make it difficult to justify spending the amount of money it would take to build the corridor. For all of these reasons, this alternative corridor was dismissed from further consideration.